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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/855,818	05/15/2001	Gerald R. Malan	UOM0206PUSP	9686

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EXAMINER

GELAGAY, SHEWAYE

ART UNIT	PAPER NUMBER
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2133

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/855,818

Applicant(s)

MALAN ET AL.

Examiner

Shewaye Gelagay

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7-12, 15 and 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-12, 15 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to Applicant's amendment filed on June 20, 2005. Claims 1 and 9 have been amended. Claims 5-6 and 13-14 are cancelled. Claims 1-4, 7-12 and 15-16 are pending.

Response to Arguments

2. Applicant's arguments filed June 20, 2005 have been fully considered but they are not persuasive. In response to the arguments concerning the previously rejected claims, the following comments are made:

Applicant argues Cox (U.S. Patent 6,738,814) "does not disclose or suggest having generating request statistics including connection statistics and service request". The Examiner asserts that that particular feature was shown to be obvious under the combination of Soha (U.S. Patent 6,738,814). In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to applicant's arguments, the recitation "a method of blocking denial of service attacks on a private network and not for publicly accessible network computer service" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body

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of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

The Applicant argues Soha (U.S. Patent 4,817,080) does not disclose the generation of request statistics based on a stream of service requests and also Soha failed to reveal any occurrence of the word "service" and "request". The Examiner disagrees. Soha discloses a monitor unit that collect statistics using a counter by monitoring the packets it receives. (Col. 2, lines 15-45) Regarding the argument that the word "service" and "request" not being found on Soha. The Examiner respectfully would like to point out, the word "request" appears several times. (Col. 11, line 8; Col. 6, lines 27) Soha also discloses collecting statistics for most information that the user requests in a network. (Note: "service" according to Microsoft Dictionary is defined as "specialized, software based functionality provided by network servers")

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, one ordinary skill in the art would have been motivated to combine the teachings of Cox with Soha

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because one would have been motivated as suggested by Cox (Abstract) in order to provide a system to block a network attack based on analyzing network traffic.

The Examiner disagrees with the applicant and maintains all rejections. All amendments and argument by the Applicant have been considered. It is the Examiner's conclusion that claims 1-4, 7-12 and 15-16 are not patentably distinct or non-obvious over the prior art of record in view of the references Cox, Soha and Smith. Therefore, all the rejection is maintained as given below.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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4. Claims 1-4 and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cox et al. (hereinafter Cox) United States Letters Patent Number 6,738,814 in view of Soha United States Letters Patent Number 4,817,080.

As per claims 1 and 9:

Cox discloses a method for protecting publicly accessible network computer services from undesirable network traffic in real-time, the method comprising:

receiving network traffic including a stream of service requests destined for the publicly accessible network computer services; (Col. 4, lines 16-19; the routing device receives a request for a connection; Col. 5, lines 15-17; receiving a request to establish a communication connection between an endpoint of a public network and an endpoint of a private network)

Cox does not explicitly disclose generating request statistics including connection statistics and service and service request distributions based on the stream of service requests. Soha in analogous art, however, discloses generating request statistics including connection statistics and service and service request distributions based on the stream of service requests. (Col. 2, lines 39-45, Col. 4, lines 23-31 and lines 37-45)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the method disclosed by Cox to include generating request statistics based on the stream of service requests. This modification would have been obvious because a person having ordinary skill in the art would have been motivated as suggested by Soha, (Col. 2, lines 54-57) in order to allow enough

statistics of interest to be collected even for the shortest packet independent of the specific information that the user request.

The combination of Cox and Soha teaches receiving network traffic including a stream of service requests and generating request statistics based on the stream of service requests. In addition, Cox further discloses

analyzing the request statistics to identify an undesirable user of the services; (Col. 1, lines 64-67; Col. 3, lines 1-3 and lines 32-35); and

limiting or removing access of the identified undesirable user to the services to protect the services. (Col. 1, lines 58-60; Col. 2, lines 10-12; Col.3, lines 4-29)

As per claims 2 and 10:

Cox and Soha teach all the subject matter as discussed above. In addition, Cox further discloses a method wherein the undesirable network traffic includes denial of service attacks. (Col. 2, lines 59-65)

As per claims 3 and 11:

Cox and Soha teach all the subject matter as discussed above. In addition, Cox further discloses a method wherein the network is the Internet. (Col. 2, line 49)

As per claims 4 and 12:

Cox and Soha teach all the subject matter as discussed above. In addition, Cox further discloses a method comprising generating one or more user profiles from the request statistics wherein the step of analyzing includes the step of comparing the one or more user profiles with a predetermined profile to determine the undesirable user. (Col. 1, lines 64-67; Col. 3, lines 1-3 and lines 32-35)

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5. Claims 7-8 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cox et al. (hereinafter Cox) United States Letters Patent Number 6,738,814 in view of Soha United States Letters Patent Number 4,817,080 and further in view of Smith, R. N. et al. (hereinafter Smith) ("Operating Firewalls Outside the LAN Perimeter").

As per claims 7 and 15:

The combination of Cox and Soha teaches receiving network traffic including a stream of service requests where the network is the Internet and generating request statistics based on the stream of service requests as discussed above. Both references do not explicitly disclose of generating request statistics includes the steps of collecting and correlating Border Gateway Protocol (BGP) data from the Internet to obtain the service request distributions. (Page 497, Col. 1, Parag. 2 ; and Col. 2, Parag. 2)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the method disclosed by Cox and Soha to include generating request statistics includes the steps of collecting and correlating Border Gateway Protocol (BGP) data from the Internet to obtain the service request distributions. This modification would have been obvious because a person having ordinary skill in the art would have been motivated in order to determine hop count when routing a packet.

As per claims 8 and 16:

Cox, Soha and Smith teach all the subject matter as discussed above. In addition, Smith further discloses a method wherein the step of correlating includes the step of identifying a topologically clustered set of machines in the Internet based on the

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data and wherein the service request distributions are generated from the set of machines. (Page 497, Col. 1, Parag. 2 ; and Col. 2, Parag. 2)

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shewaye Gelagay whose telephone number is 571-272-4219. The examiner can normally be reached on 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on 571-272-3819. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shewaye Gelagay *SG*
08/23/05

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